

How can we generate electricity?

In Europe we use a lot of electricity. Nowadays it is mainly generated by burning fossil fuels (oil, coal). But the problem of this energy source is that scientists have calculated that in 50 years we will run out of fossil fuels. Also when fossil fuels are burned, carbon dioxide is released in the atmosphere. Carbon dioxide is one of the causes of global warming.

This is the reason that scientists are looking for other, sustainable ways to generate electricity.

You are going to give a presentation (in a group of 3-4 pupils) about one way to generate electricity.

Your group starts with making a document in which you answer the questions below. This is done on the Wiki-page. In order to make this document, you can divide tasks. But remember, that each group member is responsible for what is in the document, so you have to check each other's work! Your teachers will comment on the information written on the Wiki-page. Also your group members can of course comment on your work! After approval of one of the teachers, you can start making a PowerPoint for your presentation, based on the document.

The PPT may contain exactly 8 slides. You can ask your teachers for comment. After you've finished this, you start practising the presentation. You will be marked for: Content, layout of the presentation, use of English, cooperation and presentation skills; see the attached rubric.

In your presentation you must at least answer the following questions, in your own words:

- How does it work? Explain how electricity is generated with help of your energy source.
- Where can you find "plants" of this source and why?
- Can it be used in the Netherlands or in Spain, why?/why not?
- What is the effect on the environment?

A website to start: <http://home.clara.net/darvill/altenerg/index.htm>

Use at least two other sources of information!

Write your sources of information in your document.

Name: **Mark:**

Rubric science project: “Energy sources”

Criteria Content (max. 30p)

A

- | | |
|---------------------|---|
| Poor
0-10 p | + The students try to explain how electricity is generated with their energy source, but there are too many mistakes in their explanation, which makes it hard to follow. |
| | + The students show no or little understanding of the use of their energy source. |
| Average
10-20 p | + The students explain how electricity is generated with their energy source, but there are a few mistakes in their explanation. |
| | + The students show some understanding of the use of their energy source. |
| Excellent
20-30p | + The students are able to explain very well how electricity is generated with their energy source. |
| | + The students show a good understanding of the use of their energy source in Spain and in the Netherlands. |

Criteria Layout (max. 20p)

B

- | | |
|------------------------|---|
| Insufficient
0-10 p | + The cover, pictures and layout of the document is complete, however little effort has gone into creating it. |
| | + Powerpoint presentation is poorly organised and is difficult to follow. |
| Sufficient
10-20 p | + The cover, pictures and layout of the document are extremely attractive. A lot of effort has gone into creating it. |
| | + Powerpoint presentation is well organised, and easy to follow. |

Criteria Use of English (max. 10p)

C

- | | |
|-----------------------|---|
| Insufficient
0-5 p | + Student's use of English is limited, many mistakes and inappropriate language causes confusion. |
| Sufficient
5-10 p | + Student's use of English is good, few or no mistakes and no inappropriate language. |

Criteria Cooperation (max. 20p)

D

- | | | |
|--------------|---|---|
| Insufficient | + | Students do not work well together. |
| 0-10 p | + | Communication in English within the group is limited. |
| Sufficient | + | Students work very well together. |
| 10-20 p | + | Students attempt at all times to communicate in English within the group. |

Criteria **Presentation skills (max. 20p)**

E

- | | | |
|--------------|---|--|
| Insufficient | + | Student speaks with too many pauses, which makes it difficult to follow. |
| 0-10 p | + | Student mumbles and cannot be understood. |
| Sufficient | + | Student speaks fluently, with no or little hesitation. |
| 10-20 p | + | Student speaks clearly, is easy to follow. |